

Exhibit B
Category Budget

Budget Category Item	PIER Share (\$)	Match Share (\$)	Total Cost (\$)
Personnel:			
Direct Labor	\$ 216,841	\$ 139,128	\$ 355,969
Fringe Benefits	\$ 75,894	\$ 48,695	\$ 124,589
Total Personal Services	\$ 292,735	\$ 187,823	\$ 480,558
Operating Expenses:			
Travel	\$ 12,065	\$ 6,350	\$ 18,415
Equipment	\$ 38,600	\$ 6,500	\$ 45,100
Materials/Supplies	\$ 43,100	\$ 5,000	\$ 48,100
Contractual	\$ 13,500	\$ 109,000	\$ 122,500
Miscellaneous	\$ -	\$ 64,600	\$ 64,600
Total Operating Expenses	\$ 107,265	\$ 191,450	\$ 298,715
Overhead:			
Overhead			\$ -
Total Overhead	\$ -	\$ -	\$ -
Total	\$ 400,000	\$ 379,273	\$ 779,273

**Exhibit B
Budget Details**

Direct Labor, Unloaded Hourly Rates

Title / Job Classification	Maximum Rate to be Billed* (\$ / Hr)	Number of Hours	PIER Share	Match Share	Total Cost
PI - Principal Investigator (Dr. Charles C. Zhou**)	\$ 55.00	1,520	\$ 83,600	\$ -	\$ 83,600
PE - Project Engineer (Dr. Gene Jiang***)	\$ 42.00	1,400	\$ 58,800	\$ -	\$ 58,800
Labor (Miguel Real and others)	\$ 26.36	2,824	\$ 74,441	\$ -	\$ 74,441
Project Leader (Sean Kilgrow)****	\$ 78.00	880	\$ -	\$ 68,640	\$ 68,640
Principal Engineer	\$ 72.00	410	\$ -	\$ 29,520	\$ 29,520
Administrative Principal (Sherry Wei, Mary Kelley)	\$ 72.00	345	\$ -	\$ 24,840	\$ 24,840
DSRSD Management	\$ 42.00	384	\$ -	\$ 16,128	\$ 16,128
	\$ -		\$ -	\$ -	\$ -
	\$ -		\$ -	\$ -	\$ -
	\$ -		\$ -	\$ -	\$ -
Total Direct Labor			\$ 216,841	\$ 139,128	\$ 355,969

* Maximum salary rates are caps: PIER will not reimburse at a higher rate over the term of the project.

** Charles is the PI and Gene will his backup if Charles is out of town.

*** Gene and Sean will share some of the responsibility and Sherry is their backup.

**** Sean Kilgrow and Charles Zhou will share the Project Leader job.

Fringe Benefits

Title / Job Classification	Maximum % Rate to be Billed*	Base (typically Total Direct Labor)	PIER Share	Match Share	Total Cost
PI - Principal Investigator (Dr. Charles C. Zhou**)	35%	\$83,600.00	\$ 29,260	\$ -	\$ 29,260
PE - Project Engineer (Dr. Gene Jiang***)	35%	\$58,800.00	\$ 20,580	\$ -	\$ 20,580
Labor (Miguel Real and others)	35%	\$74,440.64	\$ 26,054	\$ -	\$ 26,054
Project Leader (Sean Kilgrow)****	35%	\$68,640.00	\$ -	\$ 24,024	\$ 24,024
Principal Engineer	35%	\$29,520.00	\$ -	\$ 10,332	\$ 10,332
Administrative Principal (Sherry Wei, Mary Kelley)	35%	\$24,840.00	\$ -	\$ 8,694	\$ 8,694
DSRSD Management	35%	\$16,128.00	\$ -	\$ 5,645	\$ 5,645
Total Fringe Benefits			\$ 75,894	\$ 48,695	\$ 124,589

* Maximum fringe benefit rates are caps: PIER will not reimburse at a higher rate over the term of the project.

Travel**

Location	Purpose	Number of Trips	People per Trip	PIER Share*	Match Share	Total Cost
Between Cupertino and Sacramento	CEC meetings	5	3	\$ 1,540	\$ 1,350	\$ 2,890
Trips between the site (Dublin San Ramon Services District in Pleasanton, CA) and the following cities: Santa Clara, Cupertino, Grass Valley and Sacramento	Site inspections, equipment installation and monitoring	approx. 123	2 to 5	\$ 10,025	\$ 4,000	\$ 14,025
Trips from the San Jose airport to Seattle, WA	Procure a special gas conditioning system from Environmental Systems and Composites Corporation that is unavailable in California	1	1	\$ 500	\$ 1,000	\$ 1,500
Total Travel				\$ 12,065	\$ 6,350	\$ 18,415

* PIER Share: Travel is reimbursed at State rates. Higher travel costs can count as Match Share.

** Trips listed as "to be determined (TBD)" require advanced written approval from Commission Project Manager.

Equipment

**Exhibit B
Budget Details**

Item	Quantity	Unit Cost	PIER Share	Match Share	Total Cost
Utility Lifting Equipment (Rental)	1	\$ 9,000.00	\$ 4,500	\$ 4,500	\$ 9,000
100 Gallon Container	1	\$ 11,500.00	\$ 9,500	\$ 2,000	\$ 11,500
Large Digester	1	\$ 24,600.00	\$ 24,600	\$ -	\$ 24,600
Total Equipment			\$ 38,600	\$ 6,500	\$ 45,100

Materials, Supplies

Item	Quantity	Unit Cost	PIER Share	Match Share	Total Cost
Computers	4	\$ 1,000.00	\$ 2,000	\$ 2,000	\$ 4,000
Small Tools and Job Incidentals: welding material, torch, welding gas, etc.	100	\$ 10	\$ 1,000	\$ 3,000	\$ 4,000
Lab Supplies and Equipment: burners, beakers and test tubes, custom glassware, consumable gas tanks	100	\$ 66	\$ 6,600	\$ -	\$ 6,600
Electrical Equipment	1	\$ 2,700.00	\$ 2,700	\$ -	\$ 2,700
Gas Control & Piping	1	\$ 2,500.00	\$ 2,500	\$ -	\$ 2,500
Gas Meter	1	\$ 1,500.00	\$ 1,500	\$ -	\$ 1,500
Interconnecting Piping	1	\$ 1,650.00	\$ 1,650	\$ -	\$ 1,650
Large Meter Pump	4	\$ 600.00	\$ 2,400	\$ -	\$ 2,400
Piping & Instrumentation Diagrams (P&ID)	1	\$ 4,800.00	\$ 4,800	\$ -	\$ 4,800
Pipes & Valves	40	\$ 120.00	\$ 4,800	\$ -	\$ 4,800
Safety Flare	1	\$ 2,500.00	\$ 2,500	\$ -	\$ 2,500
Small Meter Pump	5	\$ 300.00	\$ 1,500	\$ -	\$ 1,500
Stainless Steel Containers for the 5-Compartment Incubator	5	\$ 730.00	\$ 3,650	\$ -	\$ 3,650
Office Supplies - paper, notebooks, folders, printing, writing implements	100	\$ 25.00	\$ 2,500	\$ -	\$ 2,500
Trailer (Rental)	1	\$ 3,000.00	\$ 3,000	\$ -	\$ 3,000
Total Materials and Supplies			\$ 43,100	\$ 5,000	\$ 48,100

Contractual

Subcontractor Name	Purpose	PIER Share	Match Share	Total Cost
Electrician	Install electrical capabilities in the equipment at DSRSD	\$ 5,000	\$ -	\$ 5,000
Chemical and Biochem Lab	Chemical and biological sample analysis	\$ 5,000	\$ -	\$ 5,000
P&ID Consultant	Ready equipment at DSRSD	\$ 3,500	\$ -	\$ 3,500
Outside Rental	Site Rental - DSRSD	\$ -	\$ 64,000	\$ 64,000
DSRSD	Utilities	\$ -	\$ 4,500	\$ 4,500
DSRSD	Engineering Support	\$ -	\$ 40,500	\$ 40,500
Total Contractual		\$ 13,500	\$ 109,000	\$ 122,500

Miscellaneous

Item	Purpose	PIER Share	Match Share	Total Cost
Utilities	Utilities, phones, electricity, etc.	\$ -	\$ 12,000	\$ 12,000
Contingency	Reserve for unexpected expenses	\$ -	\$ 28,100	\$ 28,100
Plant safety training	DSRSD	\$ -	\$ 4,500	\$ 4,500
M&V Review	DSRSD	\$ -	\$ 20,000	\$ 20,000
Total Miscellaneous		\$ -	\$ 64,600	\$ 64,600

Overhead					
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Overhead

**Exhibit B
Budget Details**

Name of Overhead	Overhead Base*	Maximum % Rate to be Billed**	Base Cost	PIER Share	Match Share	Total Cost
No OH will be charged to this project.		0%	\$ -	\$ -	\$ -	\$ -
Total Overhead				\$ -	\$ -	\$ -

* Base: Define cost categories used to charge Overhead rate, e.g., Total Labor, Total Direct Cost, Materials, Subcontracts, etc.

** Maximum Indirect Overhead rates are caps: PIER will not reimburse at higher rates over the term of the project.

Exhibit B
Budget Summary by Task

Task #	Task Name	PIER Funding (\$)	Match Funding (\$)	Total (\$)
1.1	Attend Kick-off Meeting	\$1,847	\$400	\$2,247
1.2	Critical Project Review Meetings	\$12,069	\$10,220	\$22,289
1.3	Final Meeting	\$5,411	\$450	\$5,861
1.4	Monthly Progress Reports	\$20,212	\$4,212	\$24,424
1.5	Final Report	\$16,170	\$16,212	\$32,382
1.6	Identify & Obtain Matching Funds	\$891	\$9,969	\$10,860
1.7	Identify & Obtain Required Permits	\$891	\$9,969	\$10,860
Task 2	Culture the Selected Bacteria	\$20,615	\$24,239	\$44,854
Task 3	Build a 5-Compartment Strain Incubator	\$28,524	\$30,268	\$58,792
Task 4	Build a 100-Gallon CMB	\$33,332	\$32,408	\$65,740
Task 5	Build a 1000-Gallon Digester	\$90,180	\$100,545	\$190,725
Task 6	Connect to the Existing DSRSD Fuel Cell	\$57,874	\$29,696	\$87,571
Task 7	Measurement of Gas Flow Rate and Verification by DSRSD	\$19,549	\$28,254	\$47,803
Task 8	Tuning of the Process	\$70,734	\$35,162	\$105,896
Task 9	Technology Transfer Activities	\$10,675	\$23,759	\$34,434
Task 10	Production Readiness Plan	\$11,026	\$23,509	\$34,535
	Total	\$400,000	\$379,273	\$779,273

**Exhibit B
PIER Funding By Task**

PIER Funding (\$)		Direct Labor	Fringe Benefits	Travel	Equipment	Materials	Contractual	Misc	Indirect Overhead	G&A	Total
Task 1	Project Administration Activities										
1.1	Attend Kick-off Meeting (1day)	1,198	419	230							\$1,847
1.2	Critical Project Review Meetings	8,384	2,935	750							\$12,069
1.3	Final Meeting	3,593	1,258	560							\$5,411
1.4	Monthly Progress Reports	14,972	5,240								\$20,212
1.5	Final Report	11,978	4,192	0							\$16,170
1.6	Identify and Obtain Matching Funds	660	231	0	0	0	0	0	0	0	\$891
1.7	Identify and Obtain Required Permits	660	231	0	0	0	0	0	0	0	\$891
	Administration Activities Subtotals	\$41,445	\$14,506	\$1,540	\$0	\$0	\$0	\$0	\$0	\$0	\$57,491
Task	Project Technical Activities										
Task 2	Culture the Selected Bacteria	10,752	3,763	1,100		5,000					\$20,615
Task 3	Build a 5-Compartment Strain Incubator	11,484	4,020	870	4,500	7,650					\$28,524
Task 4	Build a 100-Gallon CMB	12,142	4,250	1,440	9,500	4,000	2,000				\$33,332
Task 5	Build a 1000-Gallon Digester	38,282	13,399	1,900	24,600	4,000	8,000				\$90,180
Task 6	Connect to the Existing DSRSD Fuel Cell	29,944	10,480	1,000		12,950	3,500				\$57,874
Task 7	Measurement of Gas Flow Rate and Verification by DSRSD	9,621	3,367	1,060		5,500					\$19,549
Task 8	Tuning of the Process	47,910	16,769	2,055		4,000					\$70,734
Task 9	Technology Transfer Activities	7,500	2,625	550							\$10,675
Task 10	Production Readiness Plan	7,760	2,716	550							\$11,026
	Technical Activities Subtotals	\$175,396	\$61,389	\$10,525	\$38,600	\$43,100	\$13,500	\$0	\$0	\$0	\$342,509
		Direct Labor	Fringe Benefits	Travel	Equipment	Materials	Contractual	Misc	Indirect Overhead	G&A	Total
	PIER Reimbursable Totals	\$216,841	\$75,894	\$12,065	\$38,600	\$43,100	\$13,500	\$0	\$0	\$0	\$400,000
	Percent of the Total	54%	19%	3%	10%	11%	3%	0%	0%	0%	100%

**Exhibit B
Match Budget**

Match Funding (\$)		Direct Labor	Fringe Benefits	Travel	Equipment	Materials	Contractual	Misc	Indirect Overhead	G&A	Total
Task 1 Project Administration Activities											
1.1	Attend Kick-off Meeting		0	400							\$400
1.2	Critical Project Review Meetings	7,200	2,520	500							\$10,220
1.3	Final Meeting	0	0	450							\$450
1.4	Monthly Progress Reports	3,120	1,092								\$4,212
1.5	Final Report	3,120	1,092	0			12,000				\$16,212
1.6	Identify & Obtain Matching Funds	4,992	1,747					3,230			\$9,969
1.7	Identify & Obtain Required Permits	4,992	1,747					3,230			\$9,969
	Administration Activities Subtotals	\$23,424	\$8,198	\$1,350	\$0	\$0	\$12,000	\$6,460	\$0	\$0	\$51,432
Project Technical Activities											
Task 2	Culture the Selected Bacteria	11,688	4,091		2,000			6,460			\$24,239
Task 3	Build a 5-Compartment Strain Incubator	17,280	6,048	480				6,460			\$30,268
Task 4	Build a 100-Gallon CMB	17,280	6,048	620		2,000		6,460			\$32,408
Task 5	Build a 1000-Gallon Digester	29,952	10,483	900	4,500		48,250	6,460			\$100,545
Task 6	Connect to the Existing DSRSD Fuel Cell	8,064	2,822	600		2,000	9,750	6,460			\$29,696
Task 7	Measurement of Gas Flow Rate and Verification by DSRSD	7,440	2,604	500			11,250	6,460			\$28,254
Task 8	Tuning of the Process	11,520	4,032	900		1,000	11,250	6,460			\$35,162
Task 9	Technology Transfer Activities	6,240	2,184	500			8,375	6,460			\$23,759
Task 10	Production Readiness Plan	6,240	2,184	500			8,125	6,460			\$23,509
	Technical Activities Subtotals	\$115,704	\$40,496	\$5,000	\$6,500	\$5,000	\$97,000	\$58,140	\$0	\$0	\$327,840
		Direct Labor	Fringe Benefits	Travel	Equipment	Materials	Contractual	Misc	Indirect Overhead	G&A	Total
Match Funds Totals		\$139,128	\$48,695	\$6,350	\$6,500	\$5,000	\$109,000	\$64,600	\$0	\$0	\$379,273
Percentage of the Total		37%	13%	2%	2%	1%	29%	17%	0%	0%	100%